# Circle Art & Pi-Ku Poems

**Kit contains:**

- 1 Strip of cardboard
- 1 Cardboard mat (pin cushion)
- 1 Pushpin

**You will need:** a sharp pencil and paper.

**Optional:** a straight edge and coloring supplies.

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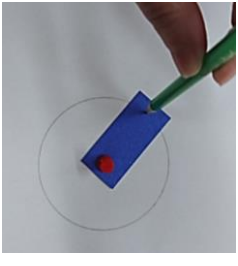
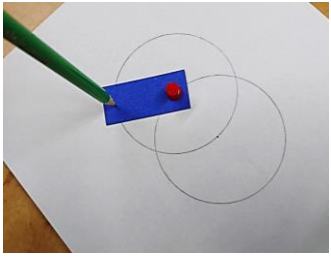
# INSTRUCTIONS

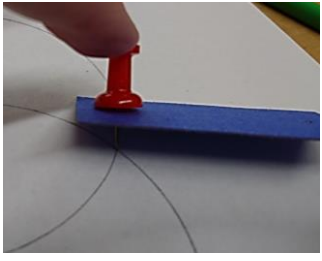
**Step 1: Construct your first circle.** Poke the pushpin through the black dot on the cardboard strip. This will be the center of your circle. Keep it there throughout this activity! Place your paper over the cardboard mat, then poke the pin into the center of the paper. Stick your pencil point into the tiny hole on the other side of the cardboard strip. Rotate your pencil all the way around until you form a circle.

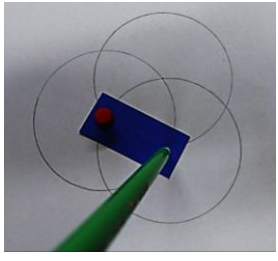
**Step 2: Construct your second circle.** Lift the cardboard strip/pin. Reposition it so that the pin is on the first circle. Insert your pencil and draw the second circle.



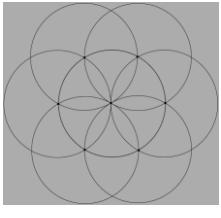


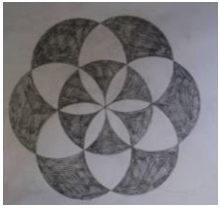
**Step 3: Construct your third circle.** Reposition your cardboard strip/pin so that the pin is on the **intersection** of the first and second circles. Draw the third circle.



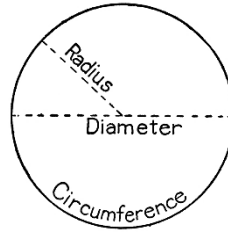


**Step 4: Construct circles 4–7.** Reposition your cardboard strip/pin so that the pin is on the intersection of the first circle and your previous circle. Draw the next circle. Repeat until you have six circles around the middle one. Color!



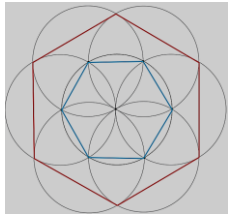


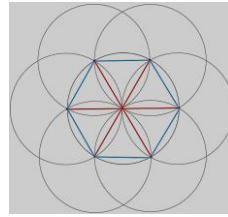
# LET'S TALK MATH!




The distance between the center and any point on that circle is called the **radius**. If you extend the radius through center until it thwacks into the other side of the circle, you get the **diameter**. If the radius has length **r**, then the diameter is **2r**. The distance around the circle is called the **circumference**. The circumference has length 2 x pi (π) x radius or **2πr**. The number π is irrational, its decimal part does not end or repeat. It has a value of about 3.14159....

If you connect the intersections in your circle art, you can construct **regular hexagons**, **equilateral triangles**, and other interesting figures.





# PI-KU POEMS

March 14 is Pi Day! (This is a bad math joke based around 3.14 being the first digits of π. There will be a lot of these in this activity.)

Celebrate Pi Day by composing a pi-ku: a 3-line poem about math. The first line has 3 syllables, the second line has 1 syllable, and the third line has 4 syllables. (Get it? 3.14. Hahahahaha!)

**Examples:**

**Cherry? Peach?**
**Pear?**
**Pi feeds my brain.**

**Pi: three point**
**one**
**four one five YUM!**

**Sir Cumf'rence**
**Knight**
**Of Round Tables**